

Conclusions for chapter 8.

Harmonizing tier testing among regulators in different countries would facilitate greater precision in risk assessment for candidate agrochemicals. Although laboratory toxicity and sub-lethal tests are currently available for evaluating potential effects of chemicals on adults and larval bees, no agreement exists among different countries on which ones to include for further development. Suggestions are given in Chapters 5 and 6 and appendix 6 for inclusion of a new tier 1 system for systemically active materials separate from that for sprayed materials. The parallel tier 1 testing of active ingredients and formulation blanks was also seen as an important improvement in need of harmonization. The participants dealing with laboratory testing improvements agreed that the adult bee 10 day feeding test and the larval *in vitro* contact/feeding test are both high priority changes to be adopted in the shortest possible time, and the details provided in appendices 1 and 6 are given to facilitate these changes. Participants also agreed that the sub-lethal tests enumerated here are likely candidates for improving the tiered testing system, and further hypothesis testing to link these observed effects on individual adult and larval bees to measurable end points affecting colony population dynamics and reproduction should be given a high research priority. Participants also agreed that the honey bee is not an adequate surrogate species for most non-*Apis* bees and that multiple species are available to use as indicators of the sensitivity of the agro- ecosystems of different countries. Adding two or more non-*Apis* bees is a realistic goal among the EU, US, and Canada in the near term, and participants recommended these be made priority changes.